

REMARKS

Reconsideration of this application is respectfully requested.

In the Final Office Action, the Examiner rejected claims 2-4 under 35 USC § 112 second paragraph as being indefinite. The Examiner states that claim 2 contains the relativistic term “substantial.” The Examiner states that it is unclear what the scope of the word “substantial” is in this invention since the specification does not describe what substantially constant elevation position is, what substantial elevational movement is or what substantially zero radius turns are.”

Section 2173.05(b) relates to relative terminology in claims. This section states

“The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 § 112 second paragraph.” *Seattle Box Company Co. v. Industrial Crating & Packing, Inc.*, 731 F2d 818, 221 USPQ 568 (Fed. Cir. 1984). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification. (Emphasis Added)

MPEP 2173.05(b) paragraph D specifically relates to use of the term “substantially” in the claims. All three examples cited section D indicate that use of the term “substantially” is not indefinite. Section D cites *In Re Mattison*, 509 F2d 563, 184 USPQ 484 (CCPA 1975) which states that the use of the term “substantially” is definite if general guidelines are contained in the specification. This section also cites *In Drew Corp. v. Gabriel Electronics*, 847 F2d 819, 6 USPQ 2d 2010 (Fed. Cir. 1988) which held that use of the term “substantially” was definite because one of ordinary skill in the art would know what is meant by “substantially equal.” (Emphasis Added)

The present invention relates to a mechanical invention which is a predictable art. With respect to the claim language of maintaining “a substantially constant elevational position” and “without substantial elevational movement,” figures 1, 2 and 4, as well as page 6, lines 3-11 of the specification clearly describe these terms as they would be understood by one of ordinary skill in the art. Specifically with respect to Figure 4, the specification states that “if the articulated arrangement were not present, the position of the tractor 400 may be illustrated by the phantom position 410. In the phantom position 410, the operator controls 412 would be significantly higher and more difficult to reach

for the operator 404 than the present embodiment 400.” (Emphasis Added) In other words, Figure 4 illustrates a phantom position in which the handle does not maintain a substantially constant elevational position and has substantial elevational movement. Further, the specification states that “when the mower traverses a valley, the articulated arrangement of the tractor 400 and the mowing deck 402 keeps the operator controls 406 in a much more convenient position for the operator 404.” (Emphasis Added) Figures 1, 2 and 4 all show the convenient position for the operator 404 to operate the device so that the handle maintains a substantially constant elevational position without substantial elevational movement. These limitations have been described and are certainly clear to those of ordinary skill in the art.

With regard to the limitation “allows the tractor unit to make substantially zero radius turns,” the specification on page 6 lines 24+ states:

For example, during forward motion, the operator may squeeze the left hand control 516 to slow the left hand drive wheel 504 and cause the tractor 500 to turn to the left. The sharpness of the turn is dictated by the amount that the operator grips the respective hand control. The hydro-axle system may have the capability of reversing the drive wheels. In such a case, squeezing the hand control completely will cause the drive wheel to reverse direction, allowing the tractor 500 to execute a zero radius turn. (Emphasis Added)

In other words, one of ordinary skill in the art would certainly understand what constitutes a substantially zero radius turn from the teachings of the specification. Certainly, the “general guidelines” are contained in the specification for making a substantially zero radius turn, as pointed out above, in accordance with *In Re Mattison, supra.*

The Examiner rejected claims 2-4 under 35 USC § 103(a) as being unpatentable over Wenzel in view of Sewell and Smith. The Examiner states that Wenzel describes a mowing deck on the front of a tractor unit but does not describe how the mower unit is attached. The Examiner further argues that Sewell shows a mower unit with two drive wheels like Wenzel and a pivoting wheel. Further, the Examiner argues that Smith describes a tractor unit and a mower deck and describes how the mower deck is attached. The Examiner argues that the attachment arms (111, 47, 55, 57 and 112, 56, 48 and 54)

allow the mower deck to pivot transversely and longitudinally so that the mower follows the contours of the ground without having the tractor unit moved.

Wenzel discloses a dual hydrostatic drive walk-behind mower that uses hydrostatic drive wheels that are situated behind a forward mowing deck. The mowing deck of Wenzel forms a unitary part of the self-propelled lawn mower of Wenzel and is attached to the power deck 11 of Wenzel in a permanent fashion to form a unitary device. Contrary to the assertions of the Examiner that Wenzel does not disclose how the deck is connected to the tractor unit of Wenzel, Figure 2 of Wenzel clearly shows the unitary structure of the Wenzel device which constitutes a clear teaching away from Applicant's invention.

Sewell discloses a self-propelled walk behind mower that comprises a single unitary system in which the mowing deck, propulsion unit and drive wheels are all contained within a single unitary structure. Sewell is cited as showing a third pivoting wheel. However, Sewell also constitutes a clear teaching away from Applicant's invention of using a separate mowing deck that is pivotally attached both longitudinal and transverse directions.

Smith discloses a riding power mower that has a cutter unit suspended beneath the riding mower. The primary support shaft 12 that joins the rear propulsion unit 10 with the steering unit 11 is pivotally mounted in a bearing 14 (Figure 2) that allows the front steering unit to pivot along an axis X (Figure 4) in a transverse direction (see Figure 5). Support shaft 12 does not pivot in the longitudinal direction and holds the mowing deck in a fixed longitudinal position with respect to the rear propulsion unit 10. Chains 55 and 56 allow the mowing deck to tilt in a transverse direction when undulations are encountered. Figure 3 shows that the arms 111, 112 are attached to the propulsion unit 10 at sockets 108 and 109, respectively. The chains 55, 56 are used to attach the rear portion of the mower deck to the arms 111, 112, to allow transverse movement of the mower deck since arms 111, 112 are attached to the propulsion unit 10.

Smith also discloses the use of lever handle 62 that allows the user of the riding mower to vertically raise and lower the cutting deck. In this manner, the user can raise and lower the suspended mowing deck of Smith manually using the lever handle 62. As pointed out above, the mowing deck automatically rotates around an axis X to provide

transverse rotational movement of the mowing deck that follows sideways changes in the terrain, as illustrated in Figure 5. However, there is clearly no teaching or suggestion in Smith of providing longitudinal changes.

Claim 2 clearly distinguishes from the art of record. The tractor unit includes “deck attachment arms that extend in a forward direction from said forward end of said tractor unit and that pivot at said forward end of said tractor unit in a direction that is transversed to said plane defined by said drive wheels and said third wheel in said lengthwise direction.” None of the art of record shows a separate tractor unit and a separate mowing deck, and deck attachment arms that allow the mowing deck to pivot with respect to the plane defined by the drive wheels and the third wheel in the lengthwise direction. In other words, the mowing deck can articulate and pivot up and down with respect to the horizontal plane defined by the tractor unit so that the tractor unit maintains a substantially constant position with regard to the user despite the up and down motions of the mowing deck.

This is further defined in the recitation of claim 2 which recites “a mowing deck...having receivers disposed at said rearward end that detachably engage said deck attachment arms so that said mowing deck pivots with respect to said tractor unit in a direction that is transverse to both said plane defined by drive wheels and said third wheel in said lengthwise direction, which allows said mowing deck to follow elevational changes as said self propelled walk behind mower traverses terrain having slopes that change with respect to both said plane and said lengthwise direction such that said handles maintain a substantially constant elevational position with respect to said user and said plane so that said user can operate said self propelled walk behind mower without substantial elevational movement of said handles, in said plane, while said self propelled walk behind mower traverses said slopes that change with respect to both said plane and said lengthwise direction.” In other words, the pivoting action which allows the mowing deck to move up and down with respect to the plane defined by the tractor unit, allows a tractor unit to stay relatively stable and in a substantially constant elevational position with respect to the user so that the handles are not moving up and down with respect to the user walking along the ground as the user traverses elevational

changes. Since the handles are maintaining a substantially constant position with respect to the user, the user is able to more easily operate the controls on the mower.

None of these features have been disclosed, or suggested in any fashion, by any of the art of record. Hence, even if the references could be combined, as suggested by the Examiner, the combination would still not disclose the claimed invention as set forth above.

Further, there is a clear teaching away from the combination of these references. Both Wenzel and Sewell disclose unitary structures that do not even recognize the problem of elevational changes of the control mechanisms, much less the use of longitudinal pivoting as a solution to these problems. Smith recognizes transverse pivoting of a suspended mower deck, but does not recognize the problems associated with elevational changes. There is no teaching to combine these different structures, and again, even if they could be combined, the combination does not disclose the claim limitations.

This application is now considered to be in condition for allowance and such action is earnestly solicited.

Dated this 28th day of November 2005.

Respectfully submitted,

By: 

William W. Cochran
Registration No. 26,652
Cochran Freund & Young LLC
2026 Caribou Drive, Suite 201
Fort Collins, CO 80525

Phone: (970) 492-1100
Fax: (970) 492-1101
Customer No.: 27479